USER MANUAL

Unlimited Electric Recreational Vehicle
Viking 4X4
OB-EW-001

www.discovermymobility.com

Viking 4X4 Power Recreational Vehicle Owner's Manual

Thank you for choosing a Observer Mobility Products. We are proud of the quality construction of every chair we build. This owner's manual explains the operation of your new chair. Please read it carefully as it contains important safety, care and maintenance information. Observer Mobility's Power Recreational Vehicle will comply with all the enclosed basic specifications. As a manufacturer of Recreational Vehicles, Observer Mobility endeavors to supply a wide variety of features and options to meet the needs of the user. However, final selection and specifications of the type of Recreational Vehicle to be used by any individual rests solely with the user and his/her healthcare professional capable of making such a selection. All of the information and specifications in this document are current at the time of printing. However due to our policy of continual product improvements we reserve the right to make changes at any time without notice. This may lead to slight variations between the illustrations and explanations in this manual and the model you have purchased.

1.1 Intended Use: The intended use of a Observer Mobility Power Recreational Vehicle is to provide mobility to persons with a maximum weight of 429 lbs, that have the capability of operating a powered Recreational Vehicle. If you experience any problems with your power chair that you are unable to solve, or if you do not feel capable of safely following any of the instructions and/or recommendations as contained in this manual, please contact your Observer Mobility dealer. You will find the model designation and serial number of the Recreational Vehicle on the base of the frame. Observer Mobility is not liable for damage to property or personal injury arising out of unsafe use of a power chair. Observer Mobility is also not liable for any property damage or personal injury arising out of the failure of any person and/or user to following the instructions and recommendations set forth in this manual.

Safety and Damage Warnings
Throughout this manual, you will find the following safety and damage warnings.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people
	STOP! This is an instruction that, if not followed, may result in damage to your Power chair. It means 'do not do this' or 'do not let this happen'.

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INTRODUCTION

1. Safety

Please read and follow all instructions in this owner's manual before attempting to operate your power chair for the first time. If there is anything in this manual you do not understand, or if you require additional assistance for setup, contact your Magic Mobility Dealer before operating the Recreational Vehicle. There are certain situations, including some medical conditions, where the power chair user will need to practice operating the power chair in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional specially trained in assisting a power chair user in various daily living activities. The contents of this manual are based on the expectation that a qualified healthcare professional has properly fitted the power chair to the user and the prescribing healthcare professional has trained the user in the operation of the Recreational Vehicle, the dangers that can be encountered and assured themselves that the user is capable of this. Using your Observer Mobility product safely also depends upon your own good judgment and/or common sense, as well as that of your provider, caregiver, and/or health professional. Observer Mobility is not responsible for injuries and/or damage resulting from any person's failure to follow the warnings, cautions and instructions in this owner's manual.

WARNING! If you are going to be stationary in your power chair for an extended period of time, turn off the power. This will conserve battery power and remove the chance of unexpected chair movement through inadvertent joystick contact or from electromagnetic sources

2. Transfers

It is recommended that you have a trained attendant present while you learn to transfer yourself. To reduce the chance of injury, we recommend:

· Be sure the power is turned off (See section 6.5.4)

· Be sure the Power chair is not in freewheel mode (See section 5.3)

· Ensure armrests and footrests are swung away or removed

· Position yourself as far back as possible in the power chair seat to prevent the power chair from tipping forward.

3. Motor Vehicle Transport

Recreational Vehicle positioning belts were not designed with the intent of providing proper restraint during motor vehicle transportation. The Department of Transportation has not approved any tie-down systems with specific Recreational Vehicles for transportation of a user while in a Recreational Vehicle, in a moving vehicle of any type.

It is Observer Mobility's position that Recreational Vehicle users are not transported in vehicles of any kind while in Recreational Vehicles.

	WARNING! Wheelchair users should be transferred into appropriate seating in vehicles for transportation and use of the restraints made available by the auto industry.

4. Weight Limitations

Your power chair is rated for a maximum weight capacity of 400 lbs (see table). Do not carry passengers or heavy weights on any part of the Recreational Vehicle.

	WARNING! Exceeding the weight capacity voids your warranty and may result in personal injury.
	STOP! Exceeding the weight capacity voids your warranty and may result in damage to your power chair.

5. Stairs and Escalators

	WARNING! Never use your power chair to negotiate stairs or escalators. Always use an elevator or lift. You may cause injury to yourself and to others.
	STOP! Trying to negotiate stairs or escalators may result in damage to your power chair.

6. Transportation Products

If it is necessary to use a transportation product such as a hoist or lift, Observer Mobility recommends that the manufacturer's instructions and specifications are closely reviewed before using that product.

7. Public Streets and Roadways

	WARNING! You should not operate your power chair on public streets and roadways. Be aware that it may be difficult for traffic to see you when you are seated on your power chair. Obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme caution

8. Stationary Obstacles: (Steps, Curbs, Etc.)

Proceed with extreme caution when driving near raised surfaces, unprotected ledges, and/or drop-offs (curbs, porches, stairs, escalators, lifts etc). Always approach an obstacle so both front wheels touch that obstacle together. Never attempt to climb a curb or obstacle at an angle.

	WARNING! Do not attempt to have your power chair climb or descend an obstacle that is higher than 2" unless you have the assistance of an attendant. Never try to travel backwards down any step, curb, or other obstacle. This may cause the power chair to tip and cause personal injury.

9. Climbing or Descending an Incline

When climbing an incline, try to keep your power chair moving; however do not use excessive speed. If you must stop, start up again slowly and then accelerate cautiously. If at anytime you feel uncomfortable, reduce your acceleration rate. When driving down an incline, set your power chair to the slowest speed setting and drive in the forward direction only. If your power chair starts to move down the incline faster than you anticipated or desired, allow it to come to a complete stop by releasing the joystick. Once the chair has stopped push the joystick forward slightly to ensure a safely controlled descent. The following advice is recommended for your safety:

* Do not drive at an angle up or down the face of the incline. Drive your power chair straight up or down the incline. This greatly reduces the possibility of tipping the chair over. · Avoid potentially hazardous inclines e.g. areas covered with snow, ice, mud, cut grass, or wet leaves.
* Avoid sudden stops and starts
* When on any sort of an incline or decline, never place the power chair in freewheel mode while seated on it or standing next to it.
* Never attempt to travel backwards down an incline.

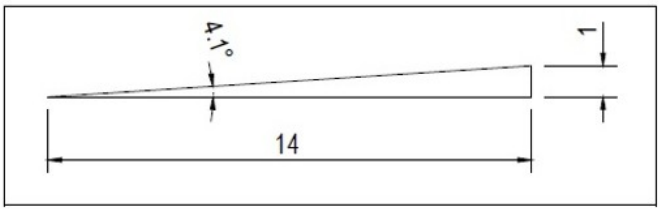
	WARNING! Always exercise extreme caution on inclines and follow the advice above to reduce the risk of personal injury

10. Maximum Recommended Incline

Most public access ramps have a maximum gradient 1 in 14 (AS1428.1). Therefore, Observer Mobility recommends that the maximum slope of an incline you attempt to

safely ascend or descend on your power chair does not exceed a 1 in 14 gradient.

⚠	WARNING! Any attempt to climb or descend a slope steeper than 1 in 14 gradient may put your power chair in an unstable position and cause it to tip, resulting in personal injury.



11. Removable Parts

⚠	WARNING! Do not attempt to lift or move a power chair by any of its removable parts. This may result in personal injury.
⊘	STOP! Do not attempt to lift or move a power chair by any of its removable parts. This may cause damage to the chair.

12. Cornering Information

Excessively high cornering speeds can create the possibility of tipping. If you feel that you may tip over in a corner, immediately reduce your speed and steering angle (i.e. lessen the sharpness of the turn) The following advice is recommended for your safety:

* Reduce cornering speed
* Reduce steering angle
* Beware of uneven, rough and slippery terrain
* Avoid turning on inclined surfaces
* Be aware of changing surfaces - such as passing from a paved area to a gravel area at high speed while turning.
* Avoid abrupt directional changes.

⚠	WARNING! When cornering, lower your speed and follow the advice above to reduce the risk of personal injury

13. Electromagnetic Fields (more information is on page 10)

Your power chair's performance may be influenced by electromagnetic fields caused

by mobile telephones or other radiating devices, such as hand-held radios, radio and television stations, wireless computer links, microwave sources, and pagers. Your power chair may also be a source of electromagnetic and radio frequency interference. Be aware that your power chair may affect the performance of alarm systems and other radiating devices.

	WARNING! Turn off your power chair when using products, which emit electromagnetic fields. This will eliminate the possibility of unintended movement caused by electromagnetic sources. Failure to take this precaution may result in personal injury

14. Positioning Belts

Do not sit on your power chair while it is in a moving vehicle refer to section 3.2 Motor Vehicle Transport. It is the obligation of the purchasers, therapists and other healthcare professionals to determine if a positioning belt is required to ensure the safe operation of this equipment by the user.

	WARNING! Ensure your positioning belt is fastened securely. Serious personal injury may result if you fall from the power chair.

15. Weather Precautions

	WARNING! Do not operate your power chair in icy or slippery conditions or on salted surfaces (i.e.; footpaths and roads). Such use may adversely affect the performance and safety of your power chair, resulting in an accident and personal injury.

16. Reaching and Bending

	WARNING! Do not bend, lean, or reach for objects, if you have to pick them up from the floor we suggest you use a specially designed "Pick Up Stick". Movements such as these may cause your power chair to tip, possibly resulting in personal injury.

17. Prescription Drugs/Physical Limitations

Consult your physician if you are taking prescribed or over-the-counter medication or if you have certain physical limitations.

	WARNING! Some medications and limitations may impair your ability to operate your power chair in a safe manner, possibly resulting in personal injury to yourself and others.

18. Alcohol

	WARNING! Do not operate your power chair while you are under the influence of alcohol, as this may impair your ability to operate your power chair in a safe manner, resulting in personal injury to yourself and others.

19. Purchaser's Agreement

By accepting delivery of this product, you promise that you will not change, alter, or modify this product. In addition you agree not to remove any safety features or alter the Recreational Vehicle in anyway. Finally you agree not to; fail, refuse, or neglect to install any retrofit kits from time to time provided by Observer to enhance or preserve the safe use of this product.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people
	STOP! This is an instruction that, if not followed, may result in damage to your Power chair. It means 'do not do this' or 'do not let this happen'.

20. Feedback

We want to hear your questions, comments, and suggestions about your new Recreational Vehicle and the service you received from your authorized agent. You can send us E-mail or refer to our website FAQ section. Contact us at : (866) 878-9294

OPERATION

21. The basic ability of the user

1. The user must have the physical ability and intellect to operate the electric Recreational Vehicle safely. A user that has vision problem or mental retardation, should not operate this Recreational Vehicle without a professional recommendation.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people

2. The user needs the ability to keep their torso balanced. In the event user is unable to keep their torso balanced, user should consult a specialist before using. There are chest straps and chest vest available that may allow a user without the ability to balance their torso to use this Recreational Vehicle safely.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people

3. A user with limit neck control or range may not have the ability to operate this Recreational Vehicle and should only use this Recreational Vehicle after receiving the recommendation to do so by a specialist. A rear view mirror is available if the specialist feels it would be suitable.

4. A user must hold enough knowledge of the operation of a power Recreational Vehicle before operating this Recreational Vehicle. In the event a user does not they should receive instructions from a specialist and do not operate this Recreational Vehicle until that specialist tells them it is safe o do so.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people

22. Operating Your Recreational Vehicle

1. Use must read and follow all instructions and notes in this manual before attempting to operate your power Recreational Vehicle for the first time.

	WARNING.! Using your new wheelchair without becoming familiar with how to operate it can cause injury to you or others. Many issues can be avoided by first practicing and becoming familiar with your new wheelchair prior to using.
	STOP.! 80% Of all accidental damage accurse during the first four weeks of owning a new wheelchair. This damage can be avoided by first practicing and becoming familiar with every aspect of your new wheelchair.

2. This power Recreational Vehicle is meant for only one purpose. Do not modify for any reason.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people

3. Before formally using your new Recreational Vehicle you should practice at open space to be familiar with all of its functions and use.

4. Users must where their seat belt when in use at all times.

	WARNING! This is a warning which, if ignored, may cause injury to yourself and other people

5. While up and down slopes, please operate at slowest speed for safety,

meanwhile, please turn on the gradienter switch to maintain a level seating position.

6. While turning left or right, 360° revolving or turning at any angle, Recreational Vehicle must be on slow speed in order to protect the motors and damage to components.

	STOP.! Making turns or turning around in any speed other then low may cause damage to the motors or other components.

23. Maintenance And Repairs.

Maintenance and repairs may only be performed by a licensed Observer Mobility technician. DO NOT at any time attempt to repair or work on this Recreational Vehicle unless you have been trained and licensed by Observer Mobility.

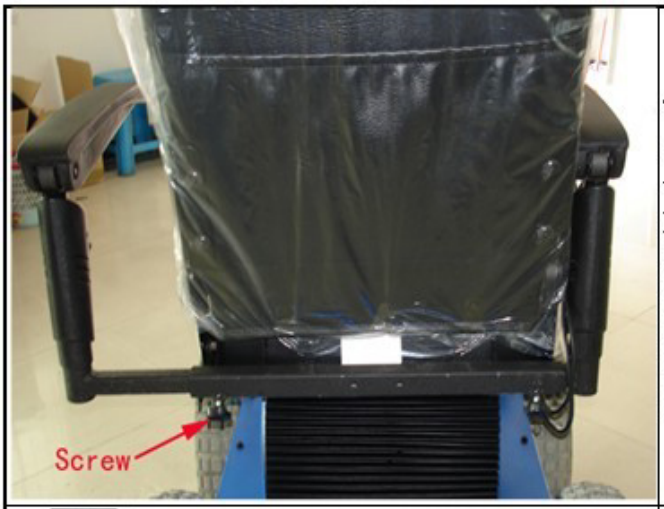
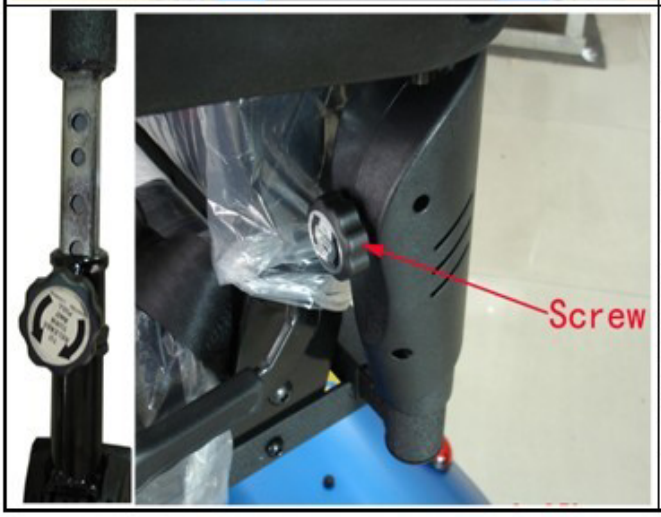
	STOP.! Do not attempt to repair yourself at any time. Doing so may cause permanente damage and does void your warranty.

24. Operating The Grandienter Or Auto Leveling System.

Please follow the instruction below (based on the controller at the right side):

	Normal state The gradienter does not work.
	Working Click on the button to ON and the green light is lighted.The gradienter in normal operation.
	Reset automatically If the gradienter detect the maximum crawl angle, it will stop working and the green light went out. Just click to OFF and wait for 2 seconds, then click the button to RST, the red light is lighted, The gradienter will reset automatically, the chair will reset to horizontal position.
	Working again Click to OFF and wait for 2 seconds, then click on the button to ON, the green light is lighted, the gradienter in normal operation station again.

25. Adjusting the width and height of the armrest as needed:

	The armrest width can be adjusted according to the user's needs. Easy steps as belows: 1. Loosen the screw. 2. Adjust the armrest width as you need. 3. Lock the screw tight again.
	The armrest height can be adjusted according to the user's needs. Easy steps as belows: 1. Loosen the screw and pull out a little. 2. Adjust the armrest height as you need. 3. Make the screw wedge in the screw hole and lock the screw tight.

26. Electromagnetic Interference (EMI) From Radio Wave Sources.

CAUTION: IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTROMAGNETIC INTERFERENCE ON YOUR POWERED RECREATIONAL VEHICLE

Powered Recreational Vehicles may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two way radios, and cellular phones. The interference (from radio wave sources) can cause the powered Recreational Vehicle to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered Recreational Vehicle's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered Recreational Vehicle can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. This powered Recreational Vehicle model as shipped, with no further modification, has an immunity level of 3 V/m.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1) Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, and police transceivers, cellular telephones, and other personal communication devices. **NOTE: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used;

2) Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle; and

3) Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered Recreational Vehicle.

Powered Recreational Vehicle Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered Recreational Vehicle's control system while using these devices. This can affect powered Recreational Vehicle movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered Recreational Vehicle.

WARNING! Turn off your power chair when using products, which emit electromagnetic fields. This will eliminate the possibility of unintended movement caused by electromagnetic sources. Failure to take this precaution may result in personal injury

WARNINGS

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered Recreational Vehicles and motorized scooters. Following the warnings listed below should reduce the chance of unintended brake release or powered Recreational Vehicle movement which could result in serious injury.

1) Do not operate hand-held transceivers (transmitters-receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered Recreational Vehicle is turned ON;

2) Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;

3) If unintended movement or brake release occurs, turn the powered Recreational Vehicle OFF as soon as it is safe;

	WARRNING.! Do not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause injury to yourself and others.
	STOP.! You should not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause damage.

4) Be aware that adding accessories or components, or modifying the powered Recreational Vehicle, may make it more susceptible to EMI (Note: There is no easy way to evaluate their effect on the overall immunity of the powered Recreational Vehicle)

5) Report all incidents of unintended movement or brake release to the powered Recreational Vehicle manufacturer, and note whether there is a source of EMI nearby.

Important Information

1) 20 volts per meter (V/m) is a generally achievable and useful immunity level against EM1 (as of May 1994) (the higher the level, the greater the protection);

2) This product has an immunity level of 3 V/m.

The joystick controls may be customized and may be one of a number of different models depending upon users requirements. This manual contains information on the standard joystick control.

27. Joystick power

If the power Recreational Vehicle begins to move in an unexpected manner, immediately release the joystick and turn the Recreational Vehicle off. Unless the joystick is damaged, this should stop your power chair.

	WARRNING.! Do not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause injury to yourself and others.
	STOP.! You should not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause damage.

If the joystick is not in the neutral (centre) position when you turn on the power, you may cause a fault in the system. Releasing the joystick and turning the power off and on again will reset the system.

WARNING ! In case of unexpected movement turn off the power and gradienter switch.

	WARRNING.! Do not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause injury to yourself and others.
	STOP.! You should not turn wheelchair back on. Call a certified service agent to evalute the wheelchair. Turning the wheelchair on prior to a certified evaluation may cause damage.

28. Rain and Water

The joystick hand control unit IS NOT WATERPROOF. The joystick module is splash proof but may be permanently damaged if water transgresses the rubber seals (this damage is not covered under warranty).

	STOP.! Be sure to protect your wheelchair joystick from water at all times. Water may cause damage to the joystick and is not covered under warranty.

We recommend carrying a plastic bag large enough to cover the joystick module and the user's hand, in case of rain.

29. Controller program

The controller program affects speed, acceleration, deceleration, and braking. The drive mode settings are preset at the factory.

WARNING! Do not attempt to reprogram your chair. Only the power chair manufacturer, an authorized representative of the manufacturer, or a trained service technician should program the controller.

30. Operating Conditions

Your control system uses industrial-grade components throughout, ensuring reliable operation in a wide range of conditions. However, you will improve the reliability of the control system if you keep exposure to extreme conditions to a minimum. Do not expose your control system or its components in damp environments for prolonged periods. If the control system becomes contaminated with food or drink clean it off as soon as possible after turning off the power.

STOP.! It is important that users follow joystick cleaning instructions as lack of maintenance or improper cleaning solutions may cause damage.

31. Cleaning

Clean the control system and the joystick with a cloth dampened with diluted detergent. Be careful when cleaning the joystick and screen. Never use abrasive or spirit-based cleaners.

STOP.! It is important that users follow joystick cleaning instructions as lack of maintenance or improper cleaning solutions may cause damage.

32. Freewheel Mode – pushing the power chair

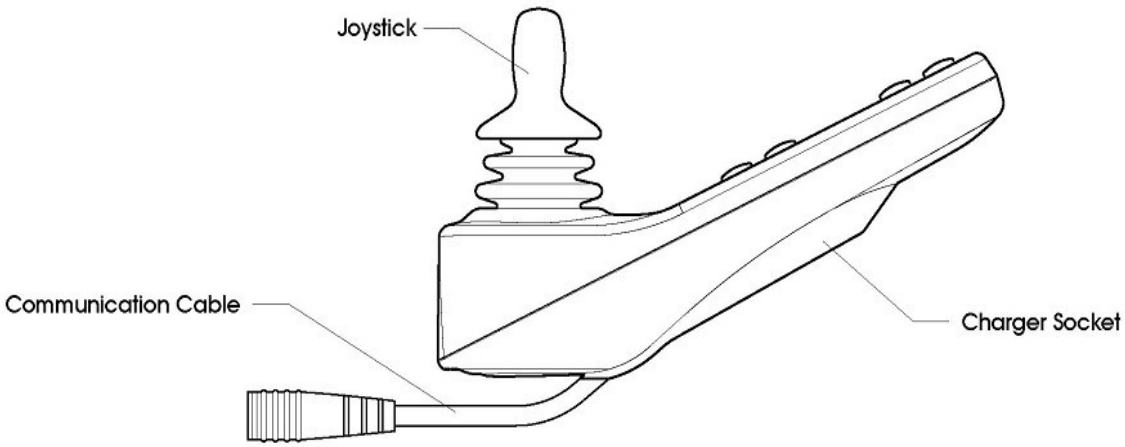
The Viking is equipped with a manual freewheel system enabling the electromagnetic brakes to be disengaged and the power Recreational Vehicle to be maneuvered manually. To disengage the built-in brakes simply pull the two levers. The Recreational Vehicle controls will not function and the “status” light on the joystick will flash when the chair is in free-wheel mode. This feature has been intentionally incorporated to protect the user from unsafe situations. Don’t forget to push the levers back in again firmly after you are done manually positioning the chair.

33. Operating Recreational Vehicle & Controls

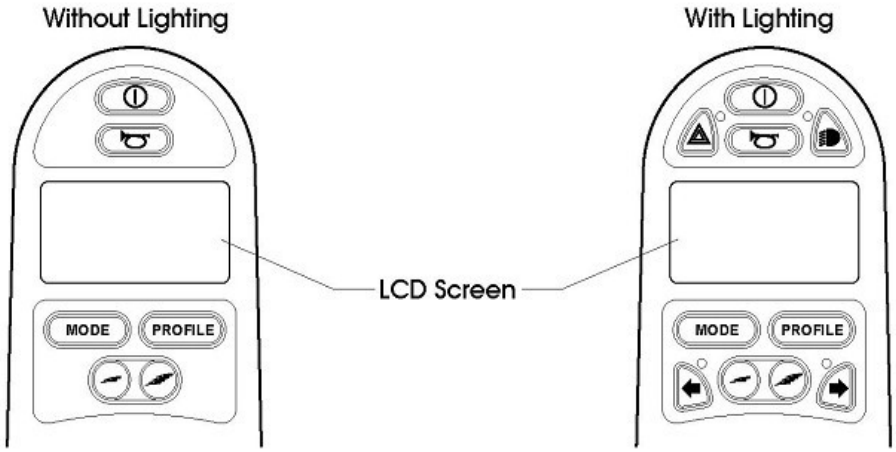
The R-net control system has two versions of Joystick Module – with and without lighting control. Most of the controls are common to both. Each of the controls is explained within this section.

34. Joystick

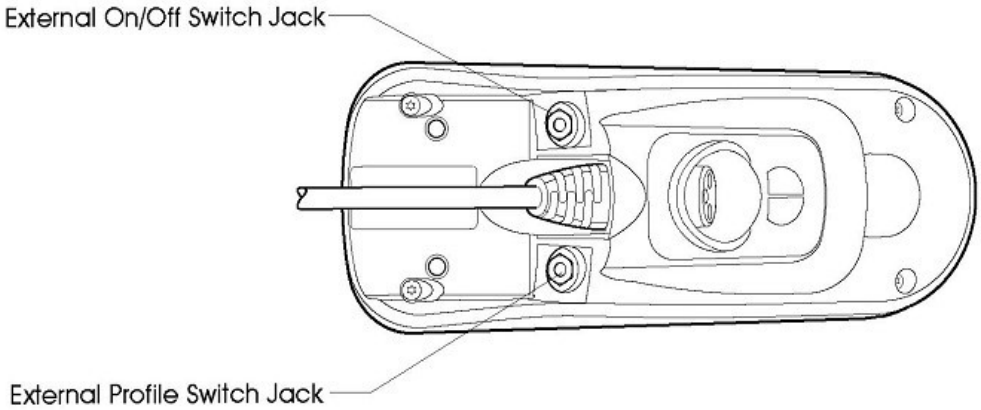
JOYSTICK MODULE



CONTROL PANEL VARIANTS



JACK SOCKETS

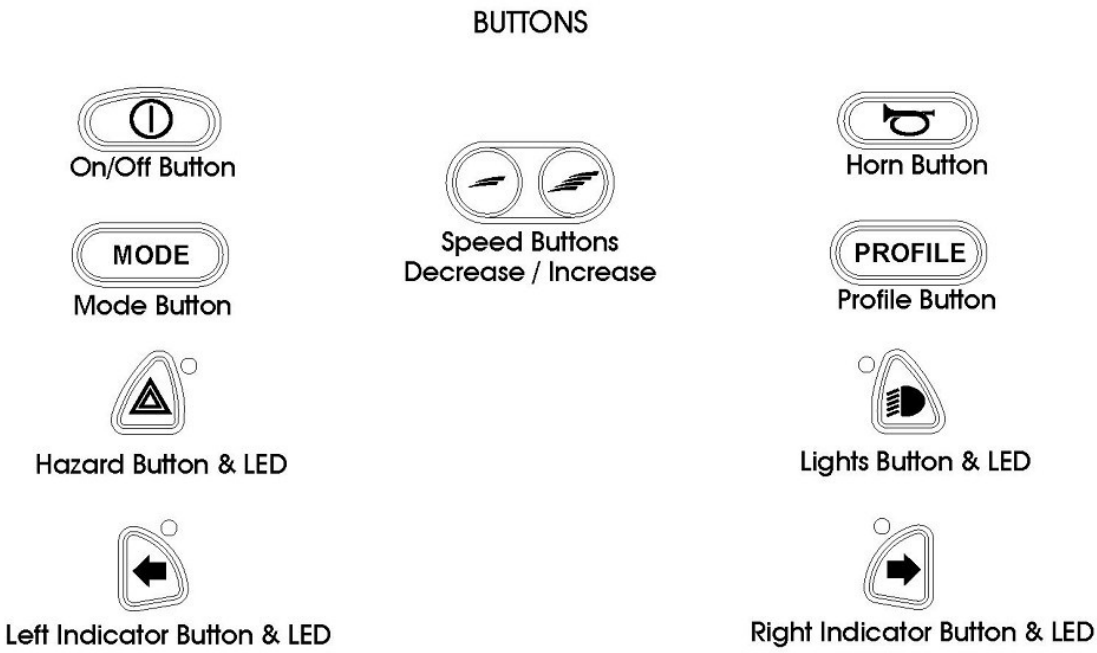


34.1 Joystick

The primary function of the joystick is to control the speed and direction of the Recreational Vehicle. The further you push the joystick from the center position the faster the Recreational Vehicle will move. When you release the joystick the brakes are automatically applied.

If the Recreational Vehicle is fitted with actuators, the joystick can also be used to move and select actuators, refer to section 5.5 for more details.

34.2 Buttons



1. On/Off Button

The On/Off button applies power to the control system electronics, which in turn supply power to the Recreational Vehicle's motors. Do not use the On/Off button to stop the Recreational Vehicle unless there is an emergency. (If you do, you may shorten the life of the Recreational Vehicle drive components).

2. Horn Button

The Horn will sound while this button is depressed.

3. Speed Decrease Button

This button decreases the maximum speed setting. Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed. Refer to section 5 for details of the momentary screen.

4. Speed Increase Button

This button increases the maximum speed setting. Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed. Refer to section 5 for details of the momentary screen.

5. Mode Button

The Mode button allows the user to navigate through the available operating Modes for the control system. The available modes are dependent on programming and the range of auxiliary output devices connected to the control system.

6. Profile Button

The Profile button allows the user to navigate through the available Profiles for the control system. The number of available Profiles is dependent on how the control system is programmed. Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed. Refer to section 5 for details of the momentary screen.

7. Hazard Warning Button and LED

This button activates and de-activates the Recreational Vehicle's hazard lights. Depress the button to turn the hazards on and depress the button again to turn them off.
When activated the hazard LED and the indicator LEDs will flash in sync with the Recreational Vehicle's indicators.

8. Lights Button and LED

This button activates and de-activates the Recreational Vehicle's lights. Depress the button to turn the lights on and depress the button again to turn them off. When activated the lights LED will illuminate.

9. Left Indicator Button and LED

This button activates and de-activates the Recreational Vehicle's left indicator. Depress the button to turn the indicator on and depress the button again to turn it off. When activated the left indicator LED will flash in sync with the Recreational Vehicle's indicator(s).

10. Right Indicator Button and LED

This button activates and de-activates the Recreational Vehicle's right indicator. Depress the button to turn the indicator on and depress the button again to turn it off. When activated the right indicator LED will flash in sync with the Recreational Vehicle's indicator(s).

11. External On/Off Switch Jack

This allows the user to turn the control system on and off using an external device, such as a buddy button.

12. External Profile Switch Jack

This allows the user to select Profiles using an external device, such as a buddy button. To change the Profile whilst driving simply press the button. If the control system is set to latched drive or actuator control operation, then the polarity of the jack input is reversed to effect a fail safe system; meaning this input will provide an External Profile Switch function and an Emergency Stop Switch function.

The Joystick Module is supplied with rubber bungs that must be inserted into the Jack Socket when no external device is connected.

STOP.! Removing "Rubber Bungs" without using a input device will cause the wheelchair not to work. This should only be done by a certified technician.

34.3 LCD Screen

The status of the control system can be understood by observing the LCD screen. The control system is on when the screen is backlit. Refer to section 5 for details on screen symbols.

34.4 Charger Socket

This socket should only be used for charging or locking the Recreational Vehicle. Do not connect any type of programming cable into this socket. Refer to section13 for more details on charging. This socket should not be used as a power supply for any other electrical device. Connection of other electrical devices may damage the control system or affect the E.M.C. performance of the Recreational Vehicle.

The control system's warranty will be voided if any device other than the battery charger supplied, with the Recreational Vehicle, or the lock key is connected into this socket.

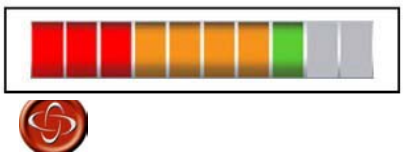
34.5 Screen Symbols

The Drive screen for the R-net has common components, which will always appear, and components that will only appear under certain conditions. Below is a view of a typical Drive screen in Profile 1.

34.6 Top Bar

Battery Indicator

This displays the charge available in the battery and can be used to alert the user to the status of the battery.



Steady: This indicates that all is well.
Flashing Slowly: The control system is functioning correctly, but you should charge the battery as soon as possible.

Stepping Up: The Recreational Vehicle batteries are being charged. You will not be able to drive the Recreational Vehicle until the charger is disconnected and you have switched the control system off and on again.

34.7 Base Bar

Current Profile

The currently selected Profile is shown in numeric form.

34.8 Main Screen Area

1. Profile Name

This is a text string that displays the name of the currently selected Profile.

2. Clock

This displays the current time in a numeric format. The clock is user adjustable. Adjustable options are:

- Visibility, whether the clock is displayed on screen.
- The display format, 12 or 24 hour.
- The time, the user can adjust the time.

These adjustments are made within the Settings Menu. Refer to section 8 for details.

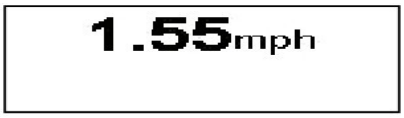
3. Speed Indicator

This displays the current speed setting.
The speed setting is adjusted using the Speed Buttons.

4. Maximum Speed Indicator

This displays the current maximum speed setting.

5.Digital Speed Display



This displays the actual speed of the Recreational Vehicle derived from the motors. The display can be set to mph or km/h.

34.9 Locking the Control System---Keypad Locking

To lock the Recreational Vehicle using the keypad;

- While the control system is switched on, depress and hold the On/Off button.
- After 1 second the control system will beep. Now release the On/Off button
- Deflect the joystick forwards until the control system beeps.
- Deflect the joystick in reverse until the control system beeps.
- Release the joystick, there will be a long beep.
- The Recreational Vehicle is now locked.

The following screen will be displayed, the next time the Control System is switched on.

To unlock the Recreational Vehicle:

- If the control system has switched off, press the On/Off button.
- Deflect the joystick forwards until the control system beeps.
- Deflect the joystick in reverse until the control system beeps.

- Release the joystick, there will be a long beep.
- The Recreational Vehicle is now unlocked.

40. Settings Menu

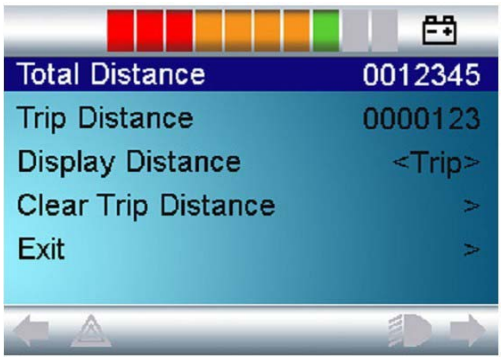
The Settings Menu allows the user to adjust the CJSM display in terms of clock adjustment and display format, the brightness of the backlight, the background color and the behavior of the odometer. The menu is accessed by depressing the Speed Down and Speed Up buttons simultaneously. A typical Settings Menu display would be as below.

Each of the menu items are described in the following sections.

Set Time
A right joystick deflection will enter a clock adjustment screen in which further joystick deflections are used to set the time.

Display Time
This sets the format of the time display or turns it off. The options are 12hr, 24hr or Off. Left and right joystick deflections are used to change between the options.

Distance
This sets the functionality of the odometer and a screen as below will appear.



Total Distance This is a value held in the Power Module and relates to the total distance driven using that Power Module.

Trip Distance This is a value held in the CJSM and relates to the total distance driven since the last reset.

Display Distance Sets whether Total Distance or Trip Distance appears as the odometer display on the CJSM.

Clear Trip Distance A right joystick deflection will clear the Trip Distance value.

Exit A right joystick deflection will return to the Settings Menu.

Backlight

This sets the intensity of the LCD backlight. The adjustable range is 0% to 100% in steps of 10%. Adjustments are made with left and right joystick deflections.

Background

This sets the color of the screen background. Blue is the standard, but in very bright sunlight then a white background will make the display more visible. The options are Blue, White and Auto. Left and right joystick deflections are used to change between the options.

Blue: means the background will be blue in all Profiles.

White: means the background will be white in all Profiles.

Auto means the color will be set by the programmable parameter, Background, which can be set to be different across the Profiles. For example, blue for the slower Profiles that are for indoor use and white for the faster Profiles intended for outdoor use. For more details of the parameter, Background, refer to the relevant section in the Programming chapter.

IR Setup

IR Set up allows the user access the Omni IR (Infra Red) menus. For full details on how to learn, delete and use the IR functions available please refer to the R-net Omni Technical Manual SK78813.

	STOP.! The IR setup should only be set by experienced users or certified technicians.

Exit

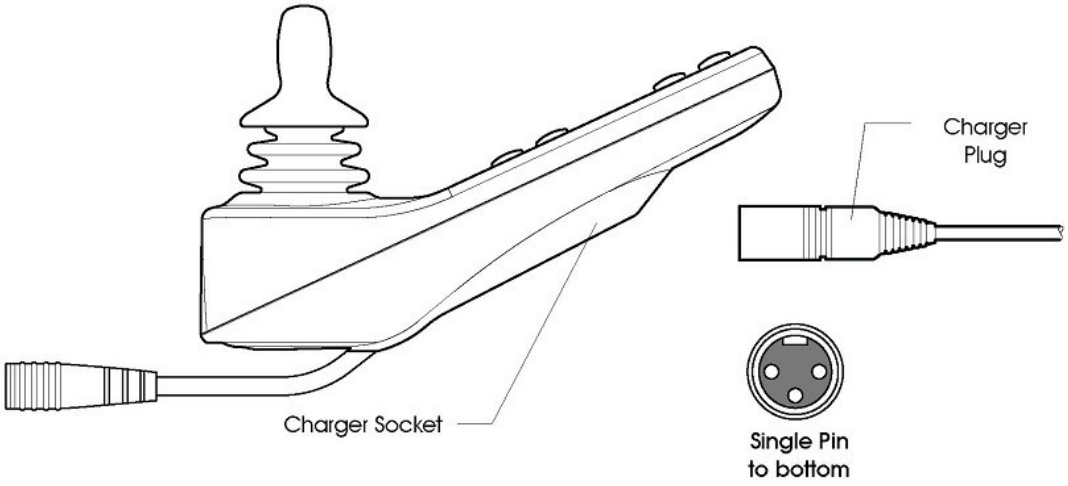
Exits the Settings Menu back to normal operation.

41. Battery Charging

To charge the Recreational Vehicle batteries connect the charger plug into the

battery charger socket on the R-net JSM. You will not be able to drive the Recreational Vehicle when the charger is connected.

To connect the charger plug, ensure the single pin is at the bottom, as shown in the following illustration, then offer the charger plug to the R-net in a horizontal orientation. The molded guide on the R-net will help you to locate the plug. Ensure the plug is pushed fully in position.



Do not exceed the maximum charging current of 12Arms. Always use an off-board charger fitted with a Neutrik NC3MX plug. Failure to observe these conditions could result in poor contact resistance in the charger connector resulting in overheating of the charger plugs. This presents a potential burn hazard for the user. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Ensure that the charger plug pins are of the correct polarity to be compatible with the pin polarity shown on the control system's specific data sheet. Failure to observe this condition could result in a burn hazard or fire hazard. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Do not disconnect batteries or open-circuit the circuit breaker while charging is in progress. Failure to observe this condition could result in a burns hazard or fire hazard. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Only use the battery charger that has been supplied with your wheelchair. The use of incorrect chargers could damage the batteries, wheelchair, control system or charger itself, or may result in parts overheating creating the potential for burns or even fire. PGDT accepts no liability for losses of any kind if the charger is incompatible with the control system (see Chapter 2, section 7) or any other part of the wheelchair system.

42. Getting Ready to Drive Your Viking 4X4

Operate the On/Off switch. The screen will go through an initializing process then show the base screen as follows.
In the case on an LED Joystick Module the battery gauge will illuminate.

Check that the Speed Setting is at a level that suits you. Push the joystick to control the speed and direction of the Recreational Vehicle.

If you push the joystick before or just after you switch the control system on, the screen will flash the joystick displaced screen. You must release and center the joystick to resume normal operation. If you do not release the joystick within five seconds the Recreational Vehicle will not be able to move, even if you release the joystick and push it again. The screen will display the diagnostic screen at this time. You can reset this condition by switching the control system off and on again.

WARNING! Always turn the power off when you are stationary to prevent unexpected movement.

Joystick lead

If for any reason, the joystick lead is disconnected take care when reconnecting, do not force the plug into the socket. The lead is polarized and should only be fitted one way.

STOP! Forcing the plug into the socket the wrong way can permanently damage the electronics system. Also, do not place the lead so that it can be pinched in the seat frame or the power base frame.

ASSEMBLY

43. Components Illustration

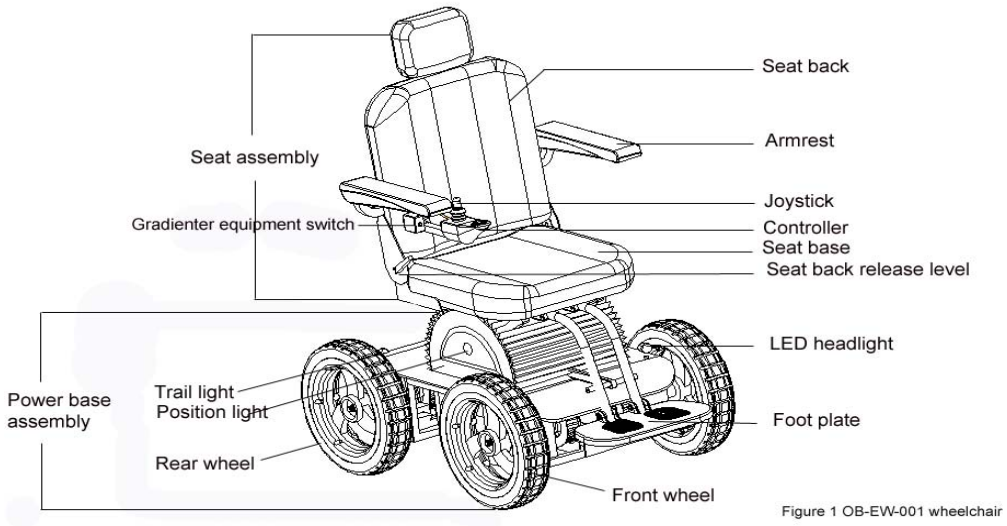


Figure 1 OB-EW-001 wheelchair

43.1 Initial Assembly

Your power chair may require some assembly either before initial use or after transportation. It may also require disassembly to make some comfort adjustments. Figure 2 on next page details those Parts of the power chair that are designed to be disassembled and assembled by an end user Or by a qualified caregiver before using the product or making comfort adjustment.

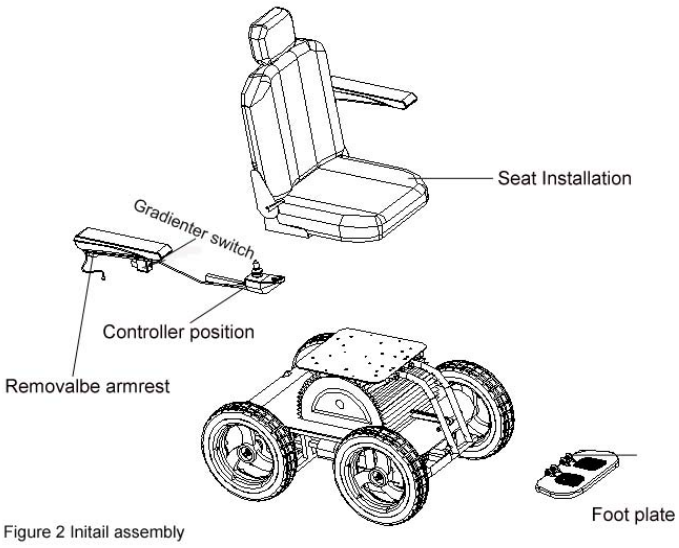


Figure 2 Initail assembly

43.2 Tire Assembly

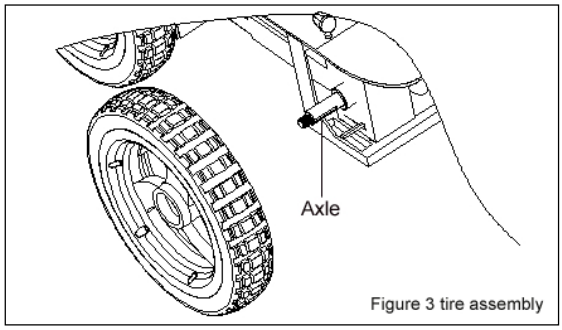


Figure 3

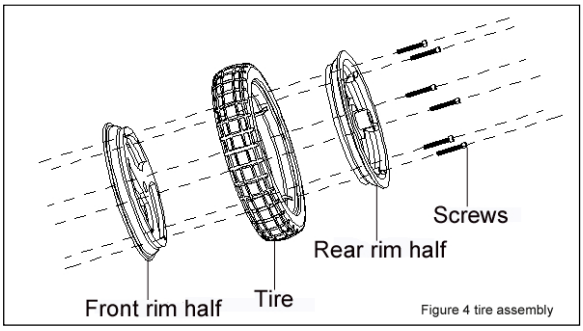


Figure4

Follow these easy steps for a quick and safe repair for the solid tires:

1. Turn off the power to the controller.
2. Set the power chair up on the blocks.
3. Remove the drive wheel nut and washer from the axle. See figure3.
4. Pull the wheel off the axle.
5. Remove the screws from the rim assembly and separate the front and rear rim, See firgure4.
6. Reassembly the rims and reinstall the screws.
7. Slide the wheel back onto the axle. Make sure that the key is in the axle slot.
8. Reinstall the drive wheel nut and washer onto the axle and tighten.
9. Remove the power chair from the blocks.

	STOP.! Tire Assembly should only be performed by mechanically inclined individuals or a certified technician. A individual with inappropriate mechanical ability attempting tire assembly may cause damage.

43.3 Tire Inflation

Tire pressures should be checked weekly. All pneumatic tires are fitted with automotive type valves and can be inflated using most typical automotive hand and foot type pumps as well as service station air outlets.

	STOP! Under inflated tires may be dangerous and can leave the tires prone to punctures. Failure to use the correct inflation pressure can result in reduced performance or cause an unsafe situation to occur
	STOP! Over inflated tires may cause the tire to explode and cause bodily harm. The recommended tire pressure is also listed on the sidewall of the tire

44. Battery Replacement

Replacing batteries steps

First,screw off the four thumb screws back of the wheel cover, and lift up back cover gently,then loose the batteries belt,and disconnect the batteries fastener, last take out the first battery. (see picture)	
Push the batteries back from the front,until the second batteries to the position of the first one.disconnect the positive wrie with a small screwdriver,then take the second battery.Do the same and disconnect the third negative wire, then take out all the batteries. (as shown)	
All batteries being taken out(as shown),disconnect the connecting line and install them on the new batteries,Repeat the above steps in opposite way and install batteries,you have complete it.	

1. Place the batteries back into the power base from the rear base.
2. Fasten the battery strap around the rear battery.
3. Connect each battery harness to his mating plug on the power base.
4. Reinstall the rear cover and the front cover.
5. Charge the batteries.

	STOP.! Battery replacement should only be performed by mechanically inclined individuals or a certified technician. A individual with inappropriate mechanical ability attempting replace batteries may cause damage.

45. BATTERIES AND CHARGING

45.1 Silicone Battery characteristics

- **Optimized for high current discharges**
  Greensaver batteries are superior at discharging large currents. Our products are able to discharge 30c in 8 Seconds without damage to the battery.
- **Reduced charging time**
  Greensaver batteries can be recharged via large currents of up to 0.5~1.0 c. this allows charging time to be greatly reduced. It only takes 30 minutes to achieve an 80% recharge, and no more than 3 hours for a 100% complete charge.
- **Enhanced capacity**
  Greensaver batteries hold more change and have much higher capacity than other batteries its class.
- **Long battery life**
  Under normal operation and usage, Greensaver batteries have a 10 years float life, and are able to last up to > 400 deep cycles.
- **Minimal self-discharge**
  Self-discharge in Greensaver batteries are greatly reduced. Not only is charging no longer required within one year prior to use, it has an extended shelf life 400% of typical average lead acid batteries.
- **Maintains high capacity under low temperatures**
  Greensaver batteries are able to hold 70~75% of their total charge under temperatures of -10°c
- **Extended operating temperature range**
  Able to withstand and operate under the harshest of environments, Greensaver products are able to operate normally from -50°c ~ +60°c with margins to spare.
- **No memory effects, and maintenance free sealed design**
  Greensaver batteries do not suffer from memory effects during recharges and discharges. Our products are also maintenance free designed to aid your convenience.
- **No acidic vapors created, electrolyte is environmentally friendly**
  Our unique and patented silicate compound electrolyte does not create acidic vapors during charging. The electrolyte itself is also non hazardous and environmentally friendly.
- **Low internal resistance**
  Using the silicate compound electrolyte, internal resistance is greatly reduced. Thus, high temperatures do not result from charging, and risks of explosion are eliminated.

45.2 Advantages

Silicate compound electrolyte

Developed by Greensaver Corporation, the new electrolyte allows for an unprecedented breakthrough in the global energy market. The electrolyte is non-corrosive, and environmentally friendly. Our technology is patent-verified in more than 10 countries worldwide. As attested, such state-of-the-art technology has never been witnessed until today, and has thus received the highest grading, as, in all qualifications. At the same time, the electrolyte allows for enhanced capacity, extended lifespan, high current discharge superiority, rapid recharge time, and superior low temperature performances. Our deep-sea models have been tested to work optimally at great depths. Along with our experienced team of engineers and professional management group, it is our company's foremost goal to bring safe, natural, and environmentally friendly energy to the world.

Sealed silicone power battery & sealed lead-acid battery comparison.

Test description	Typical maintenance free lead acid battery	Maintenance free silicone power battery
Specific energy(c20)	35-40 wh/kg	45-50wh/kg
Electrolyte	Sulfuric acid	Silicate compound
Standard charge time (constant current and charge)	4-8h	1-2h
Fast charge time (constant current and charge)	2-3h	0.5-1h
Self--discharge loss / standard shelf life without charging	5% per month/3-6month	First month 4%, declines after the second month, maintains at 90% after a year / 1-2 years
High current capability	3-7c	15-30c
Ability to recover from over-design	Fair	Excellent
Low temperature performance	Performance plummets Below 0°C	Functions normally at-50°C
Optimal operating temperature range	Needs ambient temperature adjustments	No control needed from-50°C to 60ºC
Environmental friendliness	Allows for minor acid vapor	No acid vapor at all

45.3 Charging Batteries

The battery charger is essential in providing long life for your electric Recreational Vehicle's batteries. The battery charger is designed to optimize your electric Recreational Vehicle's performance by charging the batteries safely, quickly, and easily.

To charge the batteries using the off-board charger:

1. Position your electric Recreational Vehicle next to a standard electrical outlet.
2. Be certain the controller power is turned off and the power chair is in drive.
3. Plug the off-board charger programming socket on the controller.
4. Plug the off-board charger into the electric outlet.
5. During charging, the red lights on the controller are flashing in turn. When fully charged, all the lights will turn solid green, no flashing.
6. When the batteries are fully charged , unplug the off-board charger from the electrical outlet and then from the controller.
7. Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard electrical outlet. You must recharge your power chair's batteries with the supplied charger. Do not use an automotive-type battery charger.
8. Do not expose the battery charger to rain or other source of moisture unless it has been tested for outdoor use. Explosive gases may be generated while charging the batteries. Keep the power chair and battery charger away from sources of ignition such as flames or sparks and provide adequate ventilation when charging the batteries. Inspect the battery charger, wiring, and connectors for damage before each use.
9. Do not attempt to open the battery charger case. If the battery charger does not appear to be working correctly, contact your authorized provider.
10. Do not allow children to play near the power chair while charging. Observer recommends that you do not charge the batteries while the power chair is occupied. Do not expose charger to extreme weather conditions. If the battery charger is exposed to extreme weather conditions, then it must be allowed to adjust to the difference in environmental conditions before use indoors. Refer to the manual supplied with the battery charger for more information.

	WARNING! Always protect the batteries from freezing and never charge a frozen battery. Doing so can result in personal injury and damage to the battery
	STOP! Do not put the charger on the seat of the wheelchair when charging as the charger can become quite warm. Always put the charger on the floor near the chair when in use.

45.4 To get the maximum range from your batteries:

* Fully charge the batteries prior to the trip
* Avoid stop-go driving; try to maintain a constant speed
* Try to avoid inclines
* Limit baggage weight carried

45.5 Public Transportation

The Gel Cell batteries are Federal Aviation Administration (FAA) approved, allowing safe transportation on aircraft, buses and trains. However, we recommend that any specific requirements of the carrier are checked in advance.

45.6 Battery Disposal and Recycling

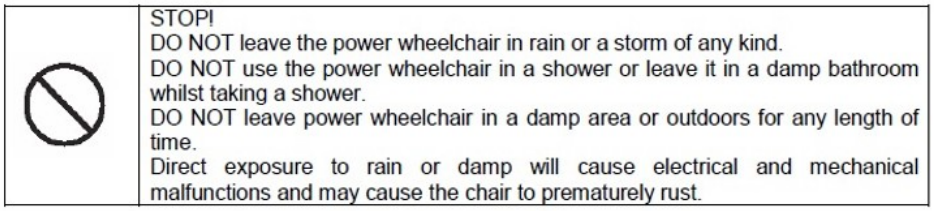
If you encounter a damaged or cracked battery, contact your Observer Mobility Dealer for instructions on disposal. Your Observer Mobility Dealer will also have all the necessary information on battery recycling, which is our recommended course of action.

46. CARE AND MAINTENANCE

The electric Recreational Vehicle is a sophisticated mobility vehicle. Like any motorized vehicle, it requires routine maintenance checks. You can perform some of these checks, but others require assistance from an authorized Provider. Preventive maintenance is very important. If you follow the maintenance checks in this section as scheduled, you can help ensure that your Recreational Vehicle gives you years of trouble-free operation. If you have any doubt as to your Recreational Vehicle's care or operation, contact an authorized Provider.

WARNING! Direct or prolonged exposure to water or dampness could cause the electric Recreational Vehicle to malfunction electronically and mechanically. Water can cause electrical components to corrode and the chair's frame to rust. Electric Recreational Vehicle should be examined periodically for signs of corrosion caused by water exposure, bodily fluids exposure, or incontinence. Damaged components should be replaced or treated immediately.

V I V



1. Dry your electric Recreational Vehicle as thoroughly as possible with a towel.

2. Allow your electric Recreational Vehicle to sit in a warm, dry place for 12 hours to allow unseen water to evaporate.

3. Check the joystick and the brakes before using your electric Recreational Vehicle again.

4. If any inconsistencies are found, take your electric Recreational Vehicle to your authorized Provider. Electric Recreational Vehicle that is frequently exposed to sources of water, such as incontinence, should be inspected often

for corrosion and electronic components may need to be replaced frequently.

Temperature

Some of the parts of your electric Recreational Vehicle are susceptible to extreme changes in temperature. Always keep your electric Recreational Vehicle between the temperatures of -20°C and50°C. In extremely cold temperatures the batteries may freeze. The specific temperature at which they freeze depends on a number of factors, such as battery charge, usage, and composition of the batteries. Temperatures above 50°C may cause your electric Recreational Vehicle to operate at a reduced speed. This reduced speed is a safety feature built into the controller that helps prevent damage to the motor and other electrical components.

46.1 General Guidelines

Avoid knocking or bumping the controller, especially the joystick. Avoid prolonged exposure of your Chair to extreme conditions, such as heat, cold, or moisture.

Keep the controller clean.

Check all connectors to ensure that they are all tight and secured properly.

WARNING! Even though the electric Recreational Vehicle has passed the necessary testing requirements for ingress of liquids, you should keep electrical connections away from sources of dampness, including direct exposure to water or bodily fluids and incontinence. Check electrical components frequently for signs of corrosion and replace as necessary.

47. Daily Checks

With the controller turned off, check the joystick. Make sure it is not bent or damaged and that it returns to the neutral position when you release it. Check the rubber boot around the base of the joystick for damage. Visually inspect the boot. Do not handle or try to repair it. See an authorized Provider if there is a problem. Visually inspect the controller cable. Make sure that it is not frayed, cut, or has any wires exposed. See an authorized Provider if there is a problem. Check for flat spots on solid tires. Flat spots could adversely affect stability.

	STOP! Do not use the joystick if the boot is torn or cracked. If the joystick boot becomes torn or cracked, ensure it is replaced IMMEDIATELY.

47.1 Weekly Checks

Disconnect and inspect the controller from the power base. If there is any corrosion, contact an authorized Provider if necessary. Ensure that all parts of the controller system are securely fastened to your electric Recreational Vehicle.

Calibrate the joystick if a noticeable difference in performance is detected or if the joystick does not operate properly. To calibrate the joystick, power off the unit, place the joystick in the neutral position, and power the unit back on. If a problem still exists with your joystick's performance, contact an authorized Provider. Check the brakes. This test should be carried out on a level surface with at least 3 feet (1 meter) of clearance around your Recreational Vehicle.

	STOP! If any of the above checks reveal a problem, please see your Observer Mobility Dealer for repair.

<u>Check the brakes</u>

1. Turn on the controller and turn down the speed level of your electric Recreational Vehicle.
2. After one second, check the battery condition meter. Make sure that it remains on.
3. Slowly push the joystick forward until you hear the electric brakes click. Immediately release the joystick. You must be able to hear each electrical brake operating within a few seconds of joystick movement. Repeat this test three times, pushing the joystick backwards, then left, and then right.

STOP! If any of the above checks reveal a problem, please see your Observer Mobility Dealer for repair.

47.2 Monthly Checks

Check for drive tire wear. See an authorized Provider for repair. Keep your electric Recreational Vehicle clean and free of foreign material, such as mud, dirt, hair, food, drink, etc.

STOP! If any of the above checks reveal a problem, please see your Observer Mobility Dealer for repair.

47.3 Yearly Checks

Take your Recreational Vehicle to an authorized Provider for yearly maintenance. This helps ensure that your electric Recreational Vehicle is functioning properly and helps prevent future complications.

48. Storage

Your electric Recreational Vehicle should be stored in a dry place, free from extreme temperature. When storing, disconnect the batteries from the Recreational Vehicle. See VI. “Batteries and Charging.” Batteries that are stored in extreme temperatures or stored without a full charge may be permanently damaged, causing unreliable performance and limited service life. It is recommended that you charge the batteries periodically throughout

periods of prolonged storage.

Lifting the frame of the Recreational Vehicle to raise the wheels off of the ground during periods of prolonged storage will eliminate flat spots from

	WARNING! Battery posts, terminals, and related accessories contain lead and lead compounds, wash your hands after touching.
	WARNING! Corrosive chemicals are contained in the batteries. Use only AGM or gel-cell batteries to reduce the risk of leakage or explosive conditions.

Use a damp cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your electric Recreational Vehicle. Avoid using products that may scratch the surface of your electric Recreational Vehicle. If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application. WARNING! Never use any chemicals to clean a seat, as they may cause the seat to become crack. Use soapy water and dry the seat thoroughly.

48.2 Wheel Replacement

If your chair is equipped with a solid tire insert, then you must replace the whole wheel assembly ; If your chair is equipped with a beach tire, which maximum charge pressure or pressure range is 2Kpa.when you replace the beach tire to solid tire, you must exchange the whole wheel assembly.

	WARNING! Be sure that the controller's power is turned off and the electric wheelchair is not in freewheel mode before performing this procedure. When changing a tire, remove only the center lug nut and washer then remove the wheel.

Follow The Steps Below:

1. Turn off the power to the controller.
2. Set the electric Recreational Vehicle up on blocks.
3. Remove the drive wheel nut and washer from the axle.
4. Pull the wheel off the axle.
5. Slide new wheel back on the shaft. Make sure that the key is in the axle slot.

6. Reinstall the drive wheel nut and washer onto the axle and tighten.

7. Remove the electric Recreational Vehicle from the blocks.

49. Breakdown Overhaul Guide

Maintenance & repairs should only be performed by a certified technician. Please refer or check following table, in order to find possible problems. Some simple check you can perform to solve the problem and restore normal operation. If you have questions please contact an authorized provider.

Test Item	Content for checking
Handle	Are they loosened? Can they move from left to right?
Motor	Is the moving sound abnormal? Do the electromagnetic brakes work?
Battery	Does the power indicator light up? Is there a sufficient charge?
Horn	Does the horn make a sound?
Seat	Does the operating lever of seat work normally? Can it move from left to right smoothly?
Screw	Are there any loosened screws?
Tire	Are they cracked or damaged?
Others	Is there any strange sounds? Is anything leaking from the Recreational Vehicle?

50. Warranty

Observer will repair or replace at our option to original purchaser, free of charge, any of the following parts found upon examination by an authorized representative of Observer to be defective in material and/or workmanship:

50.1 Warranty parts and period

Items	Period
Motor	12 months
Battery	6 months
Controller	12 months
Frame	24 months

50.2 The following situation beyond our warranty scope

a) User did not follow instructions in the user manual.
b) User neglected the Recreational Vehicle and did not maintain it.
c) Exceeding the period of warranty.
d) User voided warranty by unauthorized persons working on the Recreational Vehicle.
e) authorized modification of the Recreational Vehicle.
f) Exceeding the user weight limit.

50.3 Warranty Registration Required

Purchaser must complete and mail warranty registration card. Mail To: 24711 Sherwood Centerline Mi. 48015.

50.4 Special Declaration

In the event a user does not operate the Recreational Vehicle according to the instructions, thus causing damage. Damage under these circumstance is not covered under the warranty. The warranty provided with the purchase of the Viking power Recreational Vehicle is intended to protect the buyer from manufacture defects and does not cover any other circumstance.

	STOP! If non-certified individuals perform any work on these units, the warranty is void and damage to the equipment could occur.
	WARNING! Unauthorized modifications void your warranty and may result in personal injury.

50.5 Warranty Card

Mode		Color of Recreational Vehicle	
Proforma Invoice No.:		Date of Delivery	
User's info.:	Name:	Contact #:	TEL: FAX:
	Address:		
The service center	Name:		
	TEL: FAX:		
	Address:		
	Authorized Signature: Date:		

Service number	
Service Confirmation	The responsible person of service center signature: Date: User: Date:

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51. SPECIFICATIONS

Overall length	980mm	**Weight with batteries**	197kg
Overall width	730mm	**Max load capacity**	150kg
Overall height	1370mm	**Max speed**	7.5km/h
Wheel size(front/rear)	Ø400mm	**Max output rotate speed (for driving motor)**	63rpm
Seat-to-floor height	680mm	**Max mileage**	15-20km
Chassis-to-floor height	115mm	**Operation time**	2-5 h
Seat	High-back/Low-back seat 16”/18”/20”	**Charging time**	4-6 h
Height of obstacle to Span	≤the chassis height	**Brake**	Electromagnetic braking
Stair/curb climbable angle(Max.)	25° (it depends) (Step height≤110mm)	**Driving Motor**	2 x 1200W

Slope climbable angle(Max.)	45°(it depends)	**Level rack Motor**	1 x 200W
Turning radius	0°	**Silicone Battery**	12V,27AH ，4pcs Silicone power battery
Electronics	Level equipment(patented) PG R-NET Controller	**Drive manner**	Four-wheel drive

Dealer Contact Information

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